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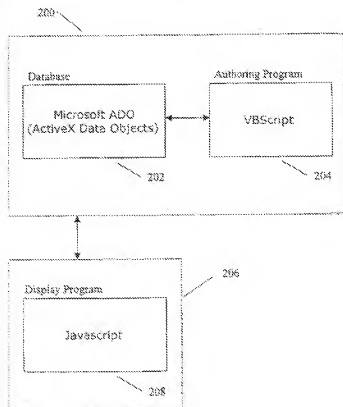
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(54) Title: METHOD AND SYSTEM OF CREATING ENHANCEMENT CONTENT TO BE DISPLAYED WITH A TELEVISION PROGRAM



(57) Abstract: A system and method for creating a platform independent enhancement file for television employs a web based author with local functions for repositioning and sizing of displayable elements. Elements comprise text, graphics, images, or imported HTML files. Trigger information associated with elements controls the time and actions performed when rendering the displayable elements. A database comprises data representing elements, element attributes, trigger information and project information. A file generation process queries the database and produces a platform independent XML compatible script file. The script file may be parsed and the resultant HTML/Javascript file may be previewed employing a web browser. The script file may be parsed with other tools to provide HTML files for specific platforms without modification of the script file.

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1. Method for creating a television enhancement comprising the steps of:
employing a graphical user interface to position a displayable element;
specifying or defining a time when said displayable element may be rendered;
storing information describing said displayable element, and said time.
2. The method of claim 1 wherein said employing step comprises the steps of:
defining a window in said graphical user interface; and
placing said displayable element at a position in said window;
said method further comprising the steps of:
employing a database to store said information;
creating a platform independent television enhancement file containing
information related to said displayable element, and said time;
parsing said platform independent television enhancement file to produce an
HTML file.
3. The method of claim 2 further comprising the step of viewing said HTML file.
4. The method of claim 1 wherein in said employing step, said graphical user interface
positions said displayable element in a position relative to a television image area; and in said
storing step, said information is associated with said position, and said time in a database;
said method further comprising the steps of:
generating an XML file using said information stored in said database; and
applying an XSL translation to said XML file.
5. The method of claim 4 further comprising the step:
specifying a z order for said element.
6. The method of claim 4 wherein said user interface further comprises:
a drag and drop function implemented in a web browser that allows said displayable
element to be positioned in response to signals from a pointing device.

7. The method of claim 4 wherein said user interface further comprises:
a resize function implemented in a web browser environment that allows said displayable element to be altered in size in response to signals from a pointing device.
8. The method of claim 2 or 3 wherein said platform independent television enhancement file is an XML file.
9. The method of claim 2 or 3 wherein said step of parsing further comprises:
applying an XSL transformation to an XML file.
10. The method of claim 2 or 3 wherein said step of parsing further comprises:
writing Javascript in said HTML file.
11. The method of claim 2 further comprising the steps of:
selecting a video image for enhancement;
displaying a video window in said window in said graphical user interface;
parsing said platform independent television enhancement file to produce an HTML file wherein in said employing a database step, said stored information also describes said video image, and in said creating step, said enhancement file contains information related to said video image.
12. The method of claim 11 further comprising:
displaying said HTML file in a web browser containing said video window.
13. The method of claim 11 further comprising:
saving said HTML file to said database.
14. The method of claim 11 wherein said step of parsing further comprises:
applying an XSL transformation to said television enhancement file.
15. The method of claim 11 wherein said platform independent television enhancement file is an XML file.

16. The method of claim 2, 3 or 11 wherein said step of placing a displayable element further comprises:
employing a software routine, downloaded to a web browser, to locally alter the position of said element in response to input from a pointing device.
17. The method of claim 1, 2, 3 or 11 wherein said displayable element comprises an imported HTML file.
18. The method of claim 1, 2, 3 or 11 wherein said step of placing a displayable element further comprises:
employing a software routine, downloaded to a web browser, to locally alter the size of said element in response to input from a pointing device.
19. The method of claim 1, 2, 3 or 11 wherein said step of placing a displayable element further comprises:
defining a z order for said element.
20. The method of claim 1, 2, 3 or 11 wherein said step of placing a displayable element further comprises:
associating a link with said displayable element.
21. The method of claim 11 wherein said step of parsing further comprises:
writing Javascript in said HTML file.
22. The method of claim 2, 3 or 11 wherein said window is contained in a web browser.
23. The method of claim 22 wherein said video window or said window employs a media player contained in said web browser.
24. A system for creating television enhancements comprising:
a graphical user interface implemented in a web browser environment;
a rectangular area defined in said browser environment;
a user interface that places a displayable element in said rectangular area;
a user interface that specifies a time at which said displayable element may be rendered;

a database that stores information associated with said displayable element and information associated with said time;
a pointing device; and
a user interface that initiates generation of an XML file containing tags for said information associated with said displayable element and said information associated with said time.

25. The system of claim 24 wherein said user interface further comprises:

a drag and drop function implemented in said web browser environment that allows said displayable element to be positioned in response to signals from said pointing device.

26. The system of claim 24 wherein said user interface for placing a displayable element further comprises:

a resize function implemented in said web browser environment that allows said displayable element to be altered in size in response to signals from said pointing device.

27. The system of claim 24 further comprising:

a user interface that applies an XSL translation to said XML file to produce an HTML file.

28. The system of claim 25 further comprising:

an emulation function operable to display said HTML file on said web browser.

29. A method of creating a television presentation enhancement comprising:

accessing a browser based authoring package through an administration screen;
establishing project information for said enhancement;
defining a window in a graphical user interface contained in a browser;
placing a displayable element at a position in said window;
defining a time when said displayable element may be rendered;
employing a database to store information describing said displayable element, and said time;

creating a platform independent television enhancement file containing information related to said displayable element, and said time;

parsing said platform independent television enhancement file to produce an HTML file for a specific television platform; and
viewing said HTML file.

30. The method of claim 29 wherein said step placing a displayable element further comprises:
employing a software routine, downloaded to said web browser, to locally alter the position of said element in response to input from a pointing device.
31. The method of Claim 29 wherein said element comprises an imported HTML file.
32. The method of claim 29 wherein said step placing a displayable element further comprises:
employing a software routine, downloaded to said web browser, to locally alter the size of said element in response to input from a pointing device.
33. The method of claim 29 wherein said step of placing a displayable element further comprises:
defining a z order for said element.
34. The method of Claim 29 wherein said step of placing a displayable element further comprises:
associating a link with said displayable element.
35. The method of Claim 29 wherein said platform independent television enhancement file is an XML file.
36. The method of Claim 29 wherein said step of parsing further comprises:
applying an XSL transformation to an XML file.
37. The method of Claim 28 wherein said step of parsing further comprises:
writing Javascript in said HTML file.
38. The method of claim 29 further comprising:
emulating said enhancement in said browser window prior to saving said enhancement file.
39. The method of claim 29 further comprising:
employing a change attribute function to alter an attribute of a previously defined element.

40. The method of claim 29 wherein said project information comprises a client name.
41. The method of claim 29 wherein said project information comprises an identifier of a video file.
42. The method of claim 29 wherein said project information comprises a file to which said enhancement may be published
43. A method for creating a television presentation enhancement comprising:
selecting a video image for enhancement;
defining a window in a graphical user interface contained in a web browser;
displaying a video window in said window in said graphical user interface;
placing a displayable element at a position in said window in said graphical user interface;
defining a time when said displayable element may be rendered;
employing a database to store information describing said video image, said displayable element, and said time;
creating a platform independent television enhancement file containing information related to said video image, said displayable element, and said time; and
parsing said platform independent television enhancement file to produce an HTML file for a specific television platform.
44. The method of claim 43 further comprising:
displaying said HTML file in a web browser containing said video window.
45. The method of claim 43 further comprising:
saving said HTML file to said database.
46. The method of claim 43 wherein said step of parsing further comprises:
applying an XSL transformation to said television enhancement file to produce a television platform specific file.
47. The method of claim 43 wherein said platform independent television enhancement file is an XML file.

48. The method of claim 43 wherein said step placing a displayable element further comprises:
employing a software routine, downloaded to said web browser, to locally alter the position of said element in response to input from a pointing device.
49. The method of claim 43 wherein said displayable element comprises an imported HTML file.
50. The method of claim 43 wherein said step placing a displayable element further comprises:
employing a software routine, downloaded to said web browser, to locally alter the size of said element in response to input from a pointing device.
51. The method of claim 43 wherein said step of placing a displayable element further comprises:
defining a z order for said element.
52. The method of claim 43 wherein said step of placing a displayable element further comprises:
associating a link with said displayable element.
53. The method of claim 43 wherein said step of parsing further comprises:
writing Javascript in said HTML file.
54. The method of claim 43 further comprising:
emulating said enhancement in said browser window prior to saving said enhancement file.
55. The method of claim 43 further comprising:
employing a change attribute function to alter an attribute of a previously defined element.
56. A system for creating television enhancements comprising:
a project interface that contains project information for said enhancements;
a graphical user interface implemented in a browser environment;
a rectangular area defined in said browser environment;
a user interface that places a displayable element in said rectangular area;

- a user interface that specifies a time at which said displayable element may be rendered;
- a database that stores information associated with said displayable element and information associated with said time;
- a user interface that allows an attribute of said displayable element to be changed at a specified time;
- a pointing device;
- a user interface that initiates generation of an XML file containing tags for said information associated with said displayable element and said information associated with said time; and
- a parsing program that produces an output file for a specific television platform.

57. The system of claim 56 wherein said user interface further comprises:
a drag and drop function implemented locally in said browser environment that allows said displayable element to be positioned in response to signals from said pointing device.
58. The system of claim 56 wherein said user interface for placing a displayable element further comprises:
a resize function implemented locally in said browser environment that allows said displayable element to be altered in size in response to signals from said pointing device.
59. The system of claim 56 further comprising:
a user interface for that applies an XSL translation to said XML file to produce an HTML file for a specific television platform.
60. The system of claim 57 further comprising:
an emulation function operable to display said HTML file and a television image in said browser prior to saving said HTML file.
61. A television enhancement file generated by the steps of:
employing a browser accessed graphical user interface to position a displayable element in a position relative to a television image area in a browser window;
specifying a time at which said displayable element may be rendered;
storing information associated with said displayable element, said information associated with said position, and said time in a database;
generating an XML file using said information stored in said database; and
applying an XSL translation to said XML file to produce a television platform specific file.

62. The television enhancement file of claim 61 further comprising the step:
specifying a z order for said element.
63. The television enhancement file of claim 61 wherein said user interface further comprises:
a drag and drop function implemented locally in said browser environment that allows said displayable element to be positioned in response to signals from a pointing device.
64. The television enhancement file of claim 61 wherein said user interface further comprises:
a resize function implemented locally in said browser environment that allows said displayable element to be altered in size in response to signals from a pointing device.
65. A web based television enhancement authoring program that operates in a web browser comprising:
an administration screen providing user access;
a projects screen containing project information;
a database screen providing storage and retrieval of enhancement projects;
a layout screen that provides selection, placement, and resizing of displayable elements, that provides changing of an attribute associated with a displayable element, and that includes a drag and drop function and a resizing function implemented locally in said web browser;
a triggers screen that synchronizes rendering of an enhancement with an event;
an emulation screen that provides display of said enhancement and a video image in said browser window prior to saving said enhancement; and
a parsing module that parses a platform independent enhancement file to produce an enhancement file for a specific television platform.